

Conservation Connection

Congratulations to the Cal Poly ITRC!



Pictured from left to right: Kirk Rodgers, Stuart Styles, and Commissioner John Keys

several one to five day classes annually for approximately 150 participants. Participants include water district personnel, government officials, and farmers. The classes provide participants with the latest technologies in water distribution automation, water management and optimal canal operation. Classes also include an annual Designer/Manager

School which supports on-farm irrigation, drainage reduction, and enhanced ground and surface water quality. The facility is equipped with an operational canal with state of the art control structures and measurement devices. It also includes Supervisory Control and Data Acquisition work stations for hands on training.

The ITRC also conducts RAPs. A RAP is an on-site evaluation of an irrigation district's facilities and operations to identify the most effective steps to improve water management. This assessment results in short-term and long-term plans to achieve cost effective improvements for water use efficiency, including some modernization and operational changes.

New equipment is now available that quickly profiles a streambed and measures flow without requiring someone to wade into the water. The equipment resembles a toy boat, and two types are on

Reclamation's Mid-Pacific Region presented the 2005 Commissioner's Award to the Cal Poly San Luis Obispo-Irrigation Teaching and Research Center (ITRC). The ITRC has provided Reclamation's irrigation and water districts with over 10 years of technical assistance and expertise through their formal training and on-site Rapid Appraisals Program (RAP).

The ITRC is led by Dr. Charles Burt and Dr. Stuart Styles, who are world class leaders in the field of irrigation. Their expertise is available to Reclamation contractors through an agreement between the ITRC and Reclamation. Under the direction of Dr. Burt and Dr. Styles, the ITRC has assembled an excellent staff.

The ITRC has established an outstanding training facility and formal training programs that help water districts and farmers become more efficient water users. The center conducts

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hand at the ITRC for demonstration and calibration purposes (pictured below). This convenient measurement system and can be checked against existing measurement structures or used at new locations where the flow is not known.



Since its inception, over 75 districts in the MP region have benefited from ITRC's assistance and expertise.

For more information about the ITRC or the class schedule, visit their website at <http://www.itrc.org/>.



San Juan Water District Receives Regional Director's Award



Pictured from left to right: Barbara Leatham, Kirk Rodgers, Shauna Lorange, Judy Gagnier, and Mitch Mitchell.

San Juan Water District (SJWD) received the 2005 Mid-Pacific Regional Director's Award. SJWD has implemented several new programs, which have been remarkably successful with measurable water savings. Despite exponential growth, the District's retail and wholesale customers' annual water use is comparable to the annual water use in 1987.

Highlights of SJWD innovative water conservation activities include the Large Landscape Irrigation Efficiency Improvement Program, the Pond Efficiency Rebate Program, the ET Controller Rebate Program, the Water Metering Program and several other rebate programs.

SJWD's Water Metering Program deserves special recognition for its excellent customer service. As a result of the Central Valley Project Improvement Act, SJWD transitioned all customers to metered rates in 2005. Customers feared that a metered rate system would significantly increase monthly water bills. To reduce customer concerns, SJWD read all meters and provided a monthly comparison of the customer's flat rate to a metered rate for one year prior to meter implementation. In

2003, SJWD also reviewed water use data to determine which customers would be significantly impacted by metered rates. SJWD contacted these customers and offered assistance in improving their water use efficiency to reduce the impact of metered billing.

In addition to the many water use efficiency programs, SJWD is a leader in developing innovative programs to implement Best Management Practices. SJWD is also partnering with other water providers to create a regional master plan to ensure quality water supplies for the next 30 years. These plans are meant to balance the area's population and environmental water needs.

For more information on SJWD and their efficiency programs, please visit <http://www.sjwd.org>.

The 2005 Water Management Planner is Now Available on CD, Hardcopy and the Internet!

The 2005 Conservation and Efficiency Criteria was finalized in

December of 2005. A Water Management Plan must be submitted to Reclamation as required by applicable contracts. Contractors can now submit Water Conservation Plans in an electronic or hardcopy format, and planners are available in 3 forms: CD, Hardcopy, or the internet.

For a CD and/or Hardcopy, please call Sheri Looper at 916-978-5219. For the internet version, please visit <http://www.usbr.gov/mp/watershare/>.

FYI

Water Use Efficiency Grants Available

The Bureau of Reclamation's CALFED Water Use Efficiency grant proposal for Fiscal Year 2006 will be advertised on www.grants.gov in February.

For more information about this program, please contact your Area Office Water Conservation Specialist.

The Mid-Pacific Regional Office Hires a New Water Conservation Specialist



Sheri Looper is the newest member of the Mid-Pacific Region's Water Conservation Team. Sheri will be focusing on agriculture and refuge activities, review of water conservation plans, financial assistance proposals, and the oversight of various research projects funding through the Region's Water Conservation Program. Prior to coming to Reclamation, Sheri served as a research associate at the University of California, Davis where she developed and conducted blood platelet studies to investigate platelet stability, functionality and circulation. She has co-authored several research papers related to the process of freeze drying blood platelets and is a co-inventor of a patented freeze-dried platelet product for use in wound healing. Sheri has a BS degree in Agriculture from Cal State Chico and an MS degree in Animal Science from U.C. Davis. Sheri lives in Elk Grove, CA with her husband Jim who is an Agriculture Teacher at Sheldon High School. During her spare time, Sheri enjoys long distance running, backpacking, and traveling. Sheri can be reached at 916-378-5219.



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Mid-Pacific Region's Area Offices Highlight Field Service Programs

Water Management Training Facilities Available at California State University, Chico

By Dennis Perkins

Several years ago, it became clear that Northern California greatly needed new ideas and techniques in hands-on water management training. Populations, regulations, water shortages, expanded agriculture, recognition of environmental water needs, competing urban demands and public pressure all contributed to a need for improved efficiencies and water conservation. However, the nearest hands-on programs for water management training were located in San Luis Obispo or Fresno. Accessible facilities were needed for the Northern California water district boards, managers and staff members.

In a rare and exciting water management cooperative program, California State University: Chico, Cal Poly, and Reclamation partnered to provide facilities and training opportunities in Northern California. The facilities are located on the 600 acre CSU

Chico, University Farm. The program provides training opportunities in Supervisory Control and Data Acquisition (SCADA), irrigation water measurement, canal water management, pumps, water control structures, and other special interest programs.

While CSU Chico provided staff, facilities and services, Cal Poly has been a welcome and active partner in the program from its inception. Dr. Burt and Dr. Styles from Cal Poly's Irrigation Training and Research Center (see page 1) provide oversight, materials and classes in cooperation with CSU Chico to make cutting edge water technology available in Northern California.

Facilities at the CSU Chico Farm include full multi functional SCADA equipment with technical staff, two flow measurement canals with delivery pipes, and a variety of control structures. The facility provides examples of flow



Picture by Brad Laughins

developing mapping assistance capabilities for Northern California water districts. The CSU Chico Ag Department is working with several districts on GIS applications and the potential inter-relationship of GIS and district database development. This is an exciting program

that may provide improved management capabilities through expanded visual aids and relational database functions. We'll provide more information as it develops.

If you have questions or interest in these programs contact: Dennis Perkins at (530) 934-1327 (dperkins@mp.usbr.gov), or Brad Laughins at (530) 898-5446 (RLaffins@csuchico.edu).

El Dorado Irrigation District's Water Use Efficiency Programs

By Pete Vonich

El Dorado Irrigation District's (EID) Water Efficiency Division targets water use efficiency (WUE) programs that create strong customer participation and have high water savings potential as described in the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU). EID's goal is to offer WUE programs that are positively received by customers.

In 2002, EID, in partnership with Reclamation, designed a monetary incentives rebate program to peak customer interest



Picture by Brad Laughins

measurement devices, canal level control devices, pipeline measurement, Doppler, Magnetic Meters, recording devices and automation.

Currently under development is the Geographic Information Systems (GIS) library for water users. The CSU Chico – GIS Department is

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in purchasing water saving washing machines. This rebate program, known as the, Residential/ Multi-Family Water Efficient Clothes Washer Rebate Program (WECW), is highly successful with 332 rebates being issued to date. The success is attributed to the public awareness campaigns which include newspaper ads, the District's website, billing inserts, and direct contact with retailers. Rebates up to \$100 are offered to offset the cost of high-efficiency washing machines. Rebate amounts are dependent on the machine's water factor (WF) and tier ranking, which are established and maintained by the Consortium for Energy Efficiency for water and energy efficiency. The WF is the gallons of water needed for each cubic feet of laundry. The lower the WF, the higher the tier ranking. Purchases of tier 3B machines, the highest ranking, received the largest rebates.

Using several key elements from the WECW program, in 2004, EID and Reclamation established the Commercial, Industrial and Institutional (CII)/Multi-Family Clothes Washer Rebate Incentive Program. This program provides rebate incentives up to \$300 for the purchase of commercial grade washing machines. These rebate program strategies were also utilized in the design and implementation of the EID/Reclamation CII ultra low-flow toilet and high efficiency toilet programs.

In 2004, EID and Reclamation also initiated a process to capture CII customers by market segment or Standard Industry Code (SIC) as required by urban Best Management Practice 9 of the CUWCC MOU. SIC codes categorize customers by business type which is essential in planning and implementing commercial WUE programs. Reports are

used for program design, marketing strategies, tracking progress and customer feedback. This information becomes invaluable when determining the project success, cost-effectiveness, and first and foremost – customer satisfaction.

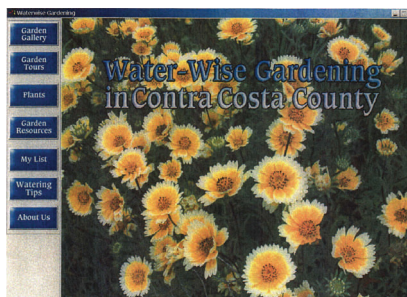
For more information, please visit <http://www.eid.org/>.

Contra Costa Water District's Water-Wise Garden CD

By Dave Woolley

Contra Costa Water District (District) developed a water-wise garden computer CD for water users in the northern San Joaquin Valley. The CD allows the District's customers and water users to identify various plant varieties, search for plant descriptions, and create plant lists prior to selecting plants for their own gardens or landscapes.

Various sections of the CD also allow the user to view plant categories for front yards, backyards, and hillsides. Several local gardens are highlighted, and area plants that are drought tolerant are listed, as well as those plants that use less water to grow. Portions of the CD are featured below.



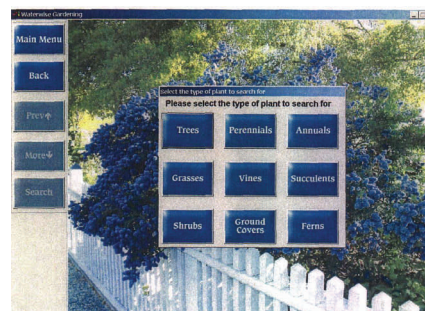
The opening screen (pictured above) prompts the user to choose from a category listed on the left: Garden Gallery, Garden

Tours, Plants, My List, Watering Tips, or About Us.

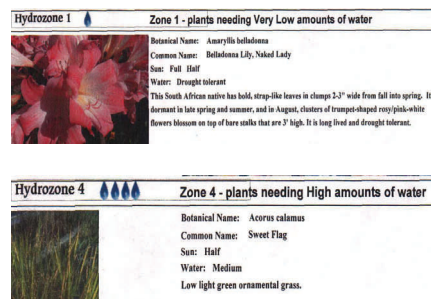
The **Garden Gallery** allows the user to view various garden categories such as front and hillsides. The **Garden Tours** provides the



user with several local garden views. The **Plants** section prompts users to browse plant lists by category, create plant lists by choosing plant traits (also separates plants by situation such as California native plants, clumping plants, patio trees, etc.) or look for specific plants by



common or botanical name. The **Garden Resource** section identifies plants according to their hydrozone, which is dependent on water needs.



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The **Watering Tips** section contains an irrigation guide that is broken down by plant type, number of watering cycles per day, number of days per week to water, station run time per cycle, etc.

Irrigation Guide

Plant type	Watering days per week	Number of cycles or times per week	Station Run Time per cycle for fixed spray heads	Station Run Time per cycle for rotors	Station Run Time per cycle for impacts	Station Run Time per cycle for multi-stream rotors
Light water reading plants	4	3	5-7	7-10-14	6-8-10	7-8-12
Medium water reading plants	2	3	4-6-9	9-12-18	7-8-12	7-8-12
Low water reading plants	1	3	4-6-9	9-12-18	7-8-12	7-8-12
Very Low water reading plants	1 every other week	3	4-6-9	9-12-18	7-8-12	7-8-12

*Plant Type
*Watering Days Per Week
*Number of Cycles per Watering Day
*Station Run Time per cycle

The District reported that the project, partially funded by a Reclamation, South Central Area Office (Fresno) Field Services grant, was much more successful than anticipated.

Partners responsible for creating this CD include Contra Costa Water District, City of Antioch, City of Brent Wood, Reclamation, Contra Costa County Watershed Program, and City of Pittsburg.

CDs may be obtained through the District by calling 925-688-8000.

Using Automatic Meter Readings as a Water Conservation Tool

By Pete Vonich

East Bay Municipal Utilities District is conducting a number of small pilot projects to investigate the potential use of Automatic Meter Readings' (AMR) data logging capability as a new tool in water conservation. This project involves retrofitting customer meters with electronic registers and meter interface units that can collect, record, and transmit hourly water consumption. A fixed network technology will be used in at least two study areas, whereas a mobile network technology will be used in two other study areas. Other select areas will be located where existing zone meters are already available to record inflow, such that system losses can be identified and an accurate water balance can be determined.

Collected data will be used to conduct end-use demand studies,

directly measure the results of water conservation interventions, and help analyze potential sources of lost water including distribution system leaks and under-reporting meters. Staff will also use this tool to help identify water conservation opportunities such as plumbing leaks, excessive or poorly timed irrigation, needed plumbing retrofits, and identification of large water consumption devices such as clothes washers or car washes. As well, the information will be analyzed to understand customer behavior and used to help residents understand their water use and opportunities to conserve water and save money.

Results of this study will help evaluate the effectiveness of AMR's technology. If successful, AMR could be a valuable water conservation and customer education tool.

For more information, please contact EBMUD at 510-986-7614.

Calendar of Events

Agricultural Irrigation System Evaluation
Class #1: ITRC, Cal Poly, San Luis Obispo, CA
June 12-14 (2 1/2 days)

Class #2: San Joaquin Valley, CA
June 14-16 (2 1/2 days)

For more information, contact the Cal Poly at 805-756-2434 or www.itrc.org.

Folsom Dam's 50th Anniversary

Folsom Dam Celebration
May 20, 2006
Beal's Point

Floods & Flows: The Story of Folsom Dam
March 26, 2006-July 8, 2006
Folsom History Museum

For more information, contact ARWEC at 916-989-7150

Central Valley Tour
April 26-28, 2006

Bay-Delta Tour
June 14-16, 2006

Presented by the Water Education Foundation

For more information, please visit
www.watereducation.org/tours.asp#watertours

Reminder!

Annual Updates for Water Management Plans are due by **March 31, 2006**. Updates can be completed at the following internet sites:

AG: www.agwatercouncil.org
Urban: www.cuwcc.org



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